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We claim:

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- A photoactivatable coating composition comprising
  - (A) an activated unsaturated group-containing compound, (B) an activated CH group-containing compound, (C) a catalyst in the form of one or more Lewis or Brönstedt bases, with the conjugated acids of the latter having a pKa of at least 10, and (D) a photoinitiator, wherein the photoinitiator is a photolatent base.
- 10 2. A coating composition according to claim 1, wherein the photolatent base is selected from
  - 1)  $\alpha$ -ammonium,  $\alpha$ -iminium or  $\alpha$  amidinium salts of formula (I) or (II)

wherein

m is 1 or 2 and corresponds to the number of positive charges of the cation;

 $R_1$  is phenyl, naphthyl, phenanthryl, anthracyl, pyrenyl, thienyl, thianthrenyl, thioxanthyl, fluorenyl or phenoxazinyl, these radicals being unsubstituted or mono- or polysubstituted with  $C_1$ - $C_{18}$  alkyl,  $C_3$ - $C_{18}$ -alkenyl,  $NR_6R_7$ , OH, CN,  $OR_8$ ,  $SR_8$ ,  $C(O)R_9$ ,  $C(O)OR_{10}$  or halogen, or  $R_1$  is a radical of formula A

$$(R_{11})_n$$
  $(R_{11})_n$   $(A),$ 

 $R_2$ ,  $R_3$ , and  $R_4$  each independently are hydrogen,  $C_1$ - $C_{18}$  alkyl,  $C_3$ - $C_{18}$  alkenyl or phenyl, or  $R_2$  and  $R_3$  and/or  $R_4$  and  $R_3$  each independently

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form a  $C_2$ - $C_{12}$  alkylene bridge; or  $R_2$ ,  $R_3$ ,  $R_4$ , together with the linking nitrogen atom, are a group of the structural formula (a), (b), (c), or (d)

$$(C_1-C_{18})$$
alkyl  $(a)$ ,  $(b)$ ,  $(c)$ ,  $(c)$ ,  $(c)$ 

5 k and I each independently are a number from 2 to 4;

 $R_5$ ,  $R_6$ ,  $R_7$ ,  $R_8$ ,  $R_9$ , and  $R_{10}$  are hydrogen or  $C_1$ - $C_{18}$  alkyl;

 $R_{11}$  is  $C_1$ - $C_{18}$  alkyl,  $C_2$ - $C_{18}$  alkenyl,  $NR_6R_7$ ,  $OR_8$ , or  $SR_8$ ; and

n is 0 or 1, 2 or 3;

 $R_{12}$ ,  $R_{13}$ , and  $R_{14}$  are phenyl or another aromatic hydrocarbon, these radicals being unsubstituted or mono- or polysubstituted with  $C_1$ - $C_{18}$  alkyl,  $OR_8$ , or halogen;

 $R_{15}$  is  $C_1$ - $C_{18}$  alkyl, phenyl or another aromatic hydrocarbon, the radicals phenyl and aromatic hydrocarbon being unsubstituted or mono- or polysubstituted with  $C_1$ - $C_{18}$  alkyl,  $OR_8$ , or halogen;

15 or

2) compounds of formula (III) or (IV)

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wherein

 $R_{16}$  is phenyl, naphthyl, phenanthryl, anthracyl, pyrenyl, thienyl, thianthrenyl, thioxanthyl, fluorenyl or phenoxazinyl, these radicals being unsubstituted or mono- or polysubstituted with  $C_1$ - $C_{18}$  alkyl,  $C_3$ - $C_{18}$ -alkenyl,  $NR_{23}R_{24}$ , OH, CN,  $OR_{25}$ ,  $SR_{25}$ ,  $C(O)R_{26}$ ,  $C(O)OR_{27}$  or halogen, or  $R_{16}$  is a radical of formula A

$$(R_{28})_n \qquad (A),$$

 $R_{17}$  and  $R_{18}$  each independently are hydrogen,  $C_1$ - $C_{18}$  alkyl,  $C_3$ - $C_{18}$  alkenyl,  $C_3$ - $C_{18}$  alkynyl or phenyl;

 $R_{20}$  is  $C_1$ - $C_{18}$  alkyl or  $NR_{29}R_{30}$ ;

 $R_{19}$ ,  $R_{21}$ ,  $R_{22}$ ,  $R_{23}$ ,  $R_{24}$ ,  $R_{25}$ ,  $R_{26}$ , and  $R_{27}$  are hydrogen or  $C_1$ - $C_{18}$  alkyl;  $R_{28}$  is  $C_1$ - $C_{18}$  alkyl,  $C_2$ - $C_{18}$  alkenyl,  $NR_{23}R_{24}$ ,  $OR_{25}$ , or  $SR_{25}$ ; and  $R_{29}$  and  $R_{30}$  each independently are hydrogen or  $C_1$ - $C_{18}$  alkyl; or

 $R_{19}$  and  $R_{21}$  together form a  $C_2$ - $C_{12}$  alkylene bridge or

 $R_{20}$  and  $R_{22}$  together, independently of  $R_{19}$  and  $R_{21}$ , form a  $C_2$ - $C_{12}$  alkylene bridge or, if  $R_{20}$  is  $NR_{29}R_{30}$ ,  $R_{30}$  and  $R_{22}$  together form a  $C_2$ - $C_{12}$  alkylene bridge.

R<sub>31</sub> is hydrogen or C<sub>1</sub>-C<sub>18</sub> alkyl;

- 20 R<sub>32</sub> is hydrogen, C<sub>1</sub>-C<sub>18</sub> alkyl or phenyl
  - 3. A coating composition according to claim 2, wherein the photolatent base is an  $\alpha$ -aminoalkene of the structure (IV),

$$R_{22}$$
  $N$   $R_{21}$   $R_{20}$   $R_{19}$   $R_{18}$   $R_{17}$   $R_{32}$   $R_{31}$   $R_{31}$ 

wherein

R<sub>16</sub> is phenyl;

R<sub>17</sub> and R<sub>18</sub> are hydrogen or methyl;

R<sub>19</sub> and R<sub>21</sub> together form a C<sub>3</sub>-alkylene bridge;

5 R<sub>20</sub> and R<sub>22</sub> together form a C<sub>3-</sub>alkylene bridge;

R<sub>31</sub> and R<sub>32</sub> are hydrogen.

- 4. A coating composition according to claim 1, wherein component (D) is present in an amount of from 0.01 to 10 wt.% based on components (A) + (B).
- 5. A coating composition according to claim 1, wherein component (C) is present in an amount of from 0.01 to 10 wt.% based on components (A) + (B).

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 A coating composition according to claim 1, wherein the composition additionally comprises a sensitiser selected from the group of thioxanthones, oxazines, ketocoumarins, rhodamines, benzophenone, and derivatives thereof.

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- 7. A coating composition according to claim 6, wherein the sensitiser is selected from the group of benzophenone and derivatives thereof.
- 8. A coating composition according to claim 1, wherein (C) is 1,8-diazabicyclo-[5,4,0]-undec-7-ene.
  - A coating composition according to claim 1, wherein the compound with an activated CH group is an oligomeric or polymeric malonate compound and/or an acetoacetate group-containing compound.

10. A coating composition according to claim 9, wherein the malonate compound is a polyurethane, a polyester, a polyacrylate, an epoxy resin, a polyamide or a polyvinyl resin with malonate groups in the main and/or side chain.

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11. A coating composition according to claim 1, wherein (A) and (B) are present in an amount such that the ratio of the number of activated CH groups to the number of activated unsaturated groups is in the range of about 0.25 to about 4.0.

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12. A coating composition according to claim 11, wherein (A) and (B) are present in an amount such that the ratio of the number of activated CH groups to the number of activated unsaturated groups is in the range of about 0.5 to about 2.0.

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- 13. A coating composition according to claim 1, wherein (C) and (D) are present in an amount such that the weight ratio of (C) to (D) is in the range of about 0.1 to about 2.5.
- 20 14. A coating composition according to claim 1 wherein the coating is applied to a substrate and subsequently the substrate is exposed to UV light.
  - 15. Use of a coating composition according to claim 1 in car repair.